



MODULE NAME:	MODULE CODE:
DATABASE INTERMEDIATE	DATA6212
DATABASE INTERMEDIATE	DATA6212d
DATABASE INTERMEDIATE	DATA6212p

ASSESSMENT TYPE:	TEST TO BE COMPLETED ELECTRONICALLY
TOTAL MARK ALLOCATION:	60 MARKS
TOTAL TIME:	The time given to students to complete this assessment will be indicated on your module in <i>Learn</i>

By submitting this assessment, you acknowledge that you have read and understood all the rules as per the terms in the registration contract, in particular the assignment and assessment rules in The IIE Assessment Strategy and Policy (IIE009), the intellectual integrity and plagiarism rules in the Intellectual Integrity Policy (IIE023), as well as any rules and regulations published in the student portal.

INSTRUCTIONS:

1. Please **adhere to all instructions**. These instructions are different from what is normally present, so take time to go through these carefully.
2. **Independent work is required**. Students are not allowed to work together on this assessment. Any contraventions of this will be handled as per disciplinary procedures in The IIE policy.
3. **No material may be copied from original sources, even if referenced correctly, unless it is a direct quote indicated with quotation marks.**
4. All work must be adequately and correctly referenced.
5. You should paraphrase (use your own words) the concepts that you are referencing, rather than quoting directly.
6. This is an open-book assessment.
7. Assessments must be typed unless otherwise specified.
8. **Ensure that you save a copy of your responses.**
 - a. Complete your responses in a Word document.
 - b. The document name must be your **Name.Student number.Module Code**.
 - c. Once completed the assessment, upload your document under the **submission link** in the correct module in *Learn*.

Additional instructions:

1. Calculators are allowed.
2. Answer All Questions.
3. Show all calculations, where applicable (marks may be awarded for this).
4. Instructions for assessments including practical computer work:
 - Use of good programming practice and comments in code is compulsory.
 - Save your application in the location indicated by the administrator (e.g. the Z:\ drive or your local drive).

- Create a folder as follows: use the module code and your own student number and create a folder with a folder name as per the format shown here:
- **StudentNumber_ModuleCode_Test.** Save all files (including any source code files, template files, design files, image files, text files, database files, etc.) within this folder.
- E.g. if your student number is 12345, and you are writing an examination for the module PROG121, create a folder named **12345_Prog121_Test** and use this throughout the session to save all of your files.
- **Important:** Upon completion of your assessment, you must save and close all your open files and double click the ExamLog application on your desktop. You must follow the instructions carefully to ensure that the information about the files that you have submitted for this assessment has been logged on the network. Specify the location of your source code on your question paper.
- If you do not have access to the software that is required and you are unable to come to campus due to Covid-19 restrictions, then write the SQL statements independent of the SQL Integrated Development Environment (IDE). Your lecturer will not penalise you on the syntax but logic of the SQL statement. It is important for you to know how to write SQL statements (skill) and not be dependent on any SQL IDE (s).

Referencing Rubric

Providing evidence based on valid and referenced academic sources is a fundamental educational principle and the cornerstone of high-quality academic work. Hence, The IIE considers it essential to develop the referencing skills of our students in our commitment to achieve high academic standards. Part of achieving these high standards is referencing in a way that is consistent, technically correct and congruent. This is not plagiarism, which is handled differently.

Poor quality formatting in your referencing will result in a penalty of **a maximum of ten percent** being deducted from the percentage awarded, according to the following guidelines. Please note, however, that **evidence of plagiarism in the form of copied or uncited work (not referenced), absent reference lists, or exceptionally poor referencing, may result in action being taken in accordance with The IIE's Intellectual Integrity Policy (0023).**

Markers are required to provide feedback to students by indicating **(circling/underlining) the information that best describes the student's work.**

Minor technical referencing errors: 5% deduction from the overall percentage – the student's work contains **five or more errors** listed in the minor errors column in the table below.

Major technical referencing errors: 10% deduction from the overall percentage – the student's work contains **five or more errors** listed in the major errors column in the table below.

If both minor and major errors are indicated, then 10% only (and not 5% or 15%) is deducted from the overall percentage. The examples provided below are not exhaustive but are provided to illustrate the error.

Required: Technically correct referencing style	Minor errors in technical correctness of referencing style Deduct 5% from percentage awarded	Major errors in technical correctness of referencing style Deduct 10% from percentage awarded
<u>Consistency</u> <ul style="list-style-type: none"> The same referencing format has been used for all in-text references and in the bibliography/reference list. 	Minor inconsistencies. <ul style="list-style-type: none"> The referencing style is generally consistent, but there are one or two changes in the format of in-text referencing and/or in the bibliography. For example, page numbers for direct quotes (in-text) have been provided for one source, but not in another instance. Two book chapters (bibliography) have been referenced in the bibliography in two different formats. 	Major inconsistencies. <ul style="list-style-type: none"> Poor and inconsistent referencing style used in-text and/or in the bibliography/ reference list. Multiple formats for the same type of referencing have been used. For example, the format for direct quotes (in-text) and/or book chapters (bibliography/ reference list) is different across multiple instances.
<u>Technical correctness</u> <ul style="list-style-type: none"> Referencing format is technically correct throughout the submission. Position of the reference: a reference is directly associated with every concept or idea. For example, quotation marks, page numbers, years, etc. are applied correctly, sources in the bibliography/reference list are correctly presented. 	Generally, technically correct with some minor errors. <ul style="list-style-type: none"> The correct referencing format has been consistently used, but there are one or two errors. Concepts and ideas are typically referenced, but a reference is missing from one small section of the work. Position of the references: references are only given at the beginning or end of every paragraph. For example, the student has incorrectly presented direct quotes (in-text) and/or book chapters (bibliography/reference list). 	Technically incorrect. <ul style="list-style-type: none"> The referencing format is incorrect. Concepts and ideas are typically referenced, but a reference is missing from small sections of the work. Position of the references: references are only given at the beginning or end of large sections of work. For example, incorrect author information is provided, no year of publication is provided, quotation marks and/or page numbers for direct quotes missing, page numbers are provided for paraphrased material, the incorrect punctuation is used (in-text); the bibliography/reference list is not in alphabetical order, the incorrect format for a book chapter/journal article is used, information is missing e.g. no place of publication had been provided (bibliography); repeated sources on the reference list.
Congruence between in-text referencing and bibliography/ reference list <ul style="list-style-type: none"> All sources are accurately reflected and are all accurately included in the bibliography/ reference list. 	Generally, congruence between the in-text referencing and the bibliography/ reference list with one or two errors. <ul style="list-style-type: none"> There is largely a match between the sources presented in-text and the bibliography. For example, a source appears in the text, but not in the bibliography/ reference list or vice versa. 	A lack of congruence between the in-text referencing and the bibliography. <ul style="list-style-type: none"> No relationship/several incongruencies between the in-text referencing and the bibliography/reference list. For example, sources are included in-text, but not in the bibliography and vice versa, a link, rather than the actual reference is provided in the bibliography.
In summary: the recording of references is accurate and complete.	In summary, at least 80% of the sources are correctly reflected and included in a reference list.	In summary, at least 60% of the sources are incorrectly reflected and/or not included in reference list.

Overall Feedback about the consistency, technical correctness and congruence between in-text referencing and bibliography:

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Question 1**(Marks: 40)**

This question relates to creating and altering tables, as well as implementing constraints and referential integrity. Answer all the questions below by creating the necessary script.

Q.1.1 You are required to create the following tables in a database named: (20)

ACCOMMODATION:

CUSTOMERS		
CUSTOMER_ID	VARCHAR(10) NOT NULL	PRIMARY KEY
CUSTOMER_NAME	VARCHAR(50) NOT NULL	

Allocated marks for this table: 4 Marks

VENUES		
VENUE_CODE	VARCHAR(5) NOT NULL	PRIMARY KEY
VENUE_NAME	VARCHAR(50) NOT NULL	
ADDRESS	VARCHAR(50) NOT NULL	
CITY	VARCHAR(50) NOT NULL	

Allocated marks for this table: 6 Marks

ACCOMMODATION_BOOKINGS		
CUSTOMER_ID	VARCHAR(10) NOT NULL	PRIMARY KEY FOREIGN KEY REFERENCES CUSTOMERS(CUSTOMER_ID)
VENUE_CODE	VARCHAR(5) NOT NULL	PRIMARY KEY FOREIGN KEY REFERENCES VENUES(VENUE_CODE)
CHECKIN_DATE	DATE NOT NULL	PRIMARY KEY
NIGHTS	SMALLINT NOT NULL	
RATE	SMALLMONEY NOT NULL	

Allocated marks for this table: 10 Marks

Q.1.2 Populate the tables created in Q.1.1 with the following data: (10)

CUSTOMERS	
CUSTOMER_ID	CUSTOMER_NAME

123456	Neo Petlele
246810	Derek Moore
369121	Pedro Ntaba
654321	Thabo Joe
987654	Dominique Woolridge

Allocated marks for this table: 3 Marks

VENUES			
VENUE_CODE	VENUE_NAME	ADDRESS	CITY
V0001	Durbs Bed and Breakfast	12 Radar Drive	Durban
V0002	Jacaranda Guesthouse	116 Clearwater Road	Pretoria
V0003	Sandton Sun	1 Waterstone Drive	Sandton
V0004	Friendly City Hotel	2 Ring Road	Port Elizabeth
V0005	Belmont Self Catering	1 Belmont Road	Cape Town

Allocated marks for this table: 3 Marks

CUSTOMER_ID	VENUE_CODE	CHECKIN_DATE	NIGHTS	RATE
123456	V0001	2020-10-30	3	1500.00
246810	V0005	2020-11-19	2	980.00
246810	V0004	2020-10-15	5	1100.00
654321	V0002	2020-09-10	1	1350.00
987654	V0001	2020-12-15	7	1300.00
123456	V0002	2020-11-01	3	1350.00
246810	V0003	2020-09-29	4	2100.00

Allocated marks for this table: 4 Marks

Q.1.3	Alter the VENUES table to add a column as specified below:	(5)														
	<table><tr><th colspan="2">VENUES</th></tr><tr><td>MAX_CAPACITY</td><td>SMALLINT</td></tr></table>	VENUES		MAX_CAPACITY	SMALLINT											
VENUES																
MAX_CAPACITY	SMALLINT															
Q.1.4	Update the contents of the VENUES table to populate the new MAX_CAPACITY field that was added to the table in Q.1.3 . Use the data as specified below to populate the field:	(5)														
	<table><tr><th colspan="2">VENUES</th></tr><tr><th>VENUE_CODE</th><th>MAX_CAPACITY</th></tr><tr><td>V0001</td><td>2</td></tr><tr><td>V0002</td><td>6</td></tr><tr><td>V0003</td><td>4</td></tr><tr><td>V0004</td><td>4</td></tr><tr><td>V0005</td><td>10</td></tr></table>	VENUES		VENUE_CODE	MAX_CAPACITY	V0001	2	V0002	6	V0003	4	V0004	4	V0005	10	
VENUES																
VENUE_CODE	MAX_CAPACITY															
V0001	2															
V0002	6															
V0003	4															
V0004	4															
V0005	10															

Question 2**(Marks: 20)**

Q.2.1	Write a query that will display the CUSTOMER_ID and CUSTOMER_NAME of CUSTOMERS for which no accommodation are booked. Sample Results: <table><tr><th>CUSTOMER_ID</th><th>CUSTOMER_NAME</th></tr><tr><td>369121</td><td>Pedro Ntaba</td></tr></table>	CUSTOMER_ID	CUSTOMER_NAME	369121	Pedro Ntaba	(5)
CUSTOMER_ID	CUSTOMER_NAME					
369121	Pedro Ntaba					
Q.2.2	Write a query to generate a report indicating the number of booked accommodation on record for each customer. Customers for which no assessments are booked should also be indicated. The report should display the CUSTOMER_ID and CUSTOMER_NAME, as well as the number of booked accommodation slots. Arrange the report so that the records are ordered in descending order based on the number of booked accommodation slots.	(10)				

Sample Results:		
CUSTOMER_ID	CUSTOMER_NAME	NUMBER OF ACCOMMODATION SLOTS
246810	Derek Moore	3
123456	Neo Petlele	2
654321	Thabo Joe	1
987654	Dominique Woolridge	1
369121	Pedro Ntaba	0

Q.2.3	Write a query that will indicate the longest accommodation booking (NIGHTS). Display the CUSTOMER_ID, CUSTOMER_NAME, CHECKIN_DATE, and NIGHTS.	(5)	
Sample Results:			
CUSTOMER_ID	CUSTOMER_NAME	CHECKIN_DATE	NIGHTS
987654	Dominique Woolridge	2020-12-15	7

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